

REMARKS

Reconsideration and allowance of the present patent application based on the foregoing amendments and following remarks are respectfully requested.

In the Final Office Action, the Examiner rejected claim 4, under 35 U.S.C. §112, ¶1, as allegedly failing to comply with the written description requirement; rejected claims 4 and 7-8, under 35 U.S.C. §102(b), as allegedly being anticipated by Yamamoto '569 (U.S. Pub. No. 2001/0034569) or alternatively, under 35 U.S.C. §103(a), as allegedly being unpatentable over Saito '674 (U.S. Pat. No. 6,301,674); and rejected claim 11, under 35 U.S.C. §103(a), as allegedly being unpatentable over Yamamoto '569 in view of Bonnefoy '874 (U.S. Pat. No. 5,714,874). The Examiner also objected to claim 4 for informalities.

By this Amendment, claims 4, 7-8, and 11 have been amended to provide a clearer presentation of the claimed subject matter. No new matter has been added. Accordingly, after entry of this Amendment, claims 4, 7-8, and 11 will remain pending in the patent application.

Applicant submits that by virtue of the changes to claim 4, the claimed subject matter has been clarified and is amply supported by the written description. (*See, e.g.*, Specification, page 13, line 27-page 14, line 12). As such, the §112, ¶1 rejection and objection of claim 4 has been rendered moot.

Applicants respectfully traverse the rejections, for the following reasons:

I. Rejections Under §102 & §103.

As indicated above, amended independent claim 4 is directed to a *cell unit* which *is detachably connected to an electronic apparatus*. As such, claim 4 positively recites, *inter alia*, a *rechargeable secondary battery* and a *response unit* configured to send a message to the electronic apparatus indicating that the power consumption required to operate the electronic apparatus in the newly-switched operation mode overruns the rated output of the fuel cell, *but still falls within the rated output of the cell unit when the required power consumption to operate the electronic apparatus in the switched operation mode exceeds an electric power that*

is supplied from the fuel cell, and the required power consumption amount is lower than an electric power that is supplied from both the fuel cell and the secondary battery.

These features are amply supported by the embodiments disclosed in the written description. That is, the disclosed embodiments provide that the fuel cell unit 2 is attachable to, and detachable from, electronic apparatus 1 (such as a notebook computer). (See, Specification, page 12, lines 4-7). The disclosed embodiments further provide that the fuel cell unit 2 itself, includes a secondary battery 23, a microcomputer 21, and a DMFC 22. (See, Specification, page 12, lines 8-16; FIG. 4). Also the disclosed embodiments additional state that the unit 2 is configured to provide a notification function to notify the electronic apparatus 1 that the current output falls within the rated output of the fuel cell unit 2 although it overruns the rated output of the DMFC 22. (See, Specification, page 13, line 27 to page 14, line 12).

Applicant submits that none of the asserted references teach or suggest each and every element of claim 4, including the features identified above. In particular, Yamamoto '569 is directed to a power supply system for home or office. (See, Yamamoto '569: par. [0042]). Yamamoto '569 discloses a power supply apparatus 100 that outputs power from a fuel cell 20 or from the power utility company 80 and a power control apparatus 300 that controls the power supply apparatus 100 to compensate for insufficient power supplied from the fuel cell 20 and the power supply from the power company 80. (See, Yamamoto '569: par. [0074], [0076]). Yamamoto '569 specifically discloses that the power control apparatus 300 generates a "power purchase signal T" that is communicated to the power company 80. (See, Yamamoto '569: par. [0075]).

Applicants first challenge the propriety of invoking Yamamoto '569 as a reference in the relevant art. Given the clear claim language and the supporting written disclosure, it defies logic to suggest that artisans interested in methanol fuel cell technology for portable electronic devices, such as PDAs, laptop computers, cameras, *etc.* would look towards house/office power grid infrastructure systems. Yamamoto '569 is clearly non-analogous art and has been grossly misapplied.

With this said, Applicants point out that the system of Yamamoto '569 is clearly not directed to *cell unit* which *is detachably connected to an electronic apparatus*, as required by claim 4. Rather, it is a system that interfaces with an office or home's power grid infrastructure. It is not a self-contained structure, as one of ordinary skill would readily appreciate by the claim term "unit" and as evidenced by the fact that the Examiner has not indicated what element of the Yamamoto '569 system corresponds to the claimed "cell unit." Additionally, the Yamamoto '569 system is incapable of being detachably connected to an electronic apparatus.

Moreover, despite the Examiner's assertions, Yamamoto '569 specifically discloses that item **80** is a power utility company – *not* a rechargeable secondary battery, as required by claim 4. Because the Yamamoto '569 system *must* communicate with the power utility company **80** to purchase additional power, via the power purchase signal T, when the fuel cell **20** is deficient, there is no way that item **80** can be remotely or reasonably construed as a rechargeable battery.

Equally notable, there is nothing in Yamamoto '569 that discloses *a response unit* configured *to send a message to the electronic apparatus* indicating that the power consumption required to operate the electronic apparatus in the newly-switched operation mode overruns the rated output of the fuel cell, *but still falls within the rated output of the cell unit when the required power consumption to operate the electronic apparatus in the switched operation mode exceeds an electric power that is supplied from the fuel cell, and the required power consumption amount is lower than an electric power that is supplied from both the fuel cell and the secondary battery*. Specifically, the Yamamoto '569 system is incapable of notifying, informing, or otherwise alerting the electric appliances that the current output falls within the rated output of the fuel cell unit **2** although it overruns the rated output of the DMFC. All that Yamamoto '569 discloses is that the power control apparatus **300** merely sends (or does not send) an acknowledgement signal back to the electric appliance that initiates a "request for use" signal. (See, Yamamoto '569: par. [0084]-[0085]; FIG. 4).

Applicants submit that Saito '674 fails to cure the deficiencies of Yamamoto '569 and fails in its own right to teach each and every element of claim 4. In fact, Saito '674 suffers from the same drawbacks as Yamamoto '569. Namely, Saito '674 is non-analogous art as it is directed

to an “intelligent” circuit breaker apparatus connected between an external power line and a residential power grid. The Saito ‘674 circuit breaker cannot be construed as a cell unit that is detachably connected to an electronic apparatus, it does it contain a rechargeable battery, and it is incapable of notifying the electric appliances that the current output falls within the rated output of the fuel cell unit although it overruns the rated output of the DMFC.

Thus, for at least these reasons, Applicants submit that claim 4 is neither anticipated by nor rendered obvious by any of the asserted references. As such, claim 4 is clearly patentable. Moreover, because claims 7-8 and 11 depend from claim 4, claims 7-8 and 11 are patentable at least by virtue of dependency as well as for their additional recitations. Accordingly, reconsideration and withdrawal of the rejection of claims 4, 7-8, and 11 are respectfully requested.

II. Conclusion.

All matters having been addressed and in view of the foregoing, Applicants respectfully requests the entry of this Amendment, the Examiner’s reconsideration of this application, and the immediate allowance of all pending claims.

Applicant’s Representative remains ready to assist the Examiner in any way to facilitate and expedite the prosecution of this matter. If any point remains in issue which the Examiner feels may be best resolved through a personal or telephone interview, please contact the Undersigned at the telephone number listed below.

Please charge any fees associated with the submission of this paper to Deposit Account Number 033975.

The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

Respectfully submitted,

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